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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,110	09/20/2000	KORBIN S. VAN DYKE	114596-26-0051BS	1446
38492	7590	09/07/2004	EXAMINER	
WILLKIE FARR & GALLAGHER LLP INTELLECTUAL PROPERTY LEGAL ASSISTANTS 787 SEVENTH AVE NEW YORK, NY 10019-6099			ELLIS, RICHARD L	
			ART UNIT	PAPER NUMBER
			2183	

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/666,110	Applicant(s) VAN DYKE ET AL.	
	Examiner Richard Ellis	Art Unit 2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040628</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-72 remain for examination.
2. Applicant is notified that the previously submitted amendment fails to comply with the requirements of 37 CFR 1.121. See attached flyer for a summary of the requirements. In the present case, claim 5 fails to provide a parenthetical status indicator as required by 37 CFR 1.121 (see flyer, part II, A, 1). It is also noted that the effective date of implementation of the new 37 CFR 1.121 rules was July 30, 2003, over one full year ago.
3. Applicant's IDS submitted June 28, 2004 fails to fully comply with the requirements of 37 CFR 1.98 for the following reasons:
 - 3.1. US Patent 5,355,487 has not been identified by inventor, patent number and issue date (MPEP 609 III A (1))
 - 3.2. References: Dean, "*ProfileMe ...*", Kim and Tyson, "*Analyzing the Working Set ...*", M. Lipasti and J. Shen, "*Exceeding the Data-Flow Limit ...*", and Veen, "*Dataflow Machine Architecture*" have been cited but copies of the references have not been provided. In the IDS statement, applicant states that copies of missing references can be found in parent cases 09/239,194 and/or 09/322,443. However, a copy of the references listed above has not been found in the references accompanying either of the two cited parent cases.

The non-compliant information has not been considered.
4. Applicant's request for acknowledgement that the preliminary amendment is entered is noted. The preliminary amendment that was filed on February 20, 2001 was received by the office, and was entered into the application when it was received.
5. The text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.
6. The drawings are objected to because fig. 9c fails to provide a reference numeral for the "internal format" shown as the center element of the figure. Both the LDA/STA and ADD instructions are labeled 941 and 943 respectively, implying that the center element was intended to have been labeled 942, but no such label has been provided. Correction is required.

Applicant is reminded that the correction of the drawing to properly label the center instruction of fig. 9c will also necessitate an amendment to the specification to reference the

new element number at all spots where the specification makes reference to the center instruction of fig. 9c.

7. The amendment filed June 28, 2004 is objected to under 35 USC § 132 because it introduces new matter into the specification. 35 USC § 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "a RISC instruction set of the RISC decoder designed to share a substantial portion of its opcode values with opcodes of the CISC instruction set, and to implement a substantial portion of the addressing modes of the CISC instruction set.

8. Applicant's assertion on page 22 of the response that this text is "supported, for example, by Fig. 9C and at page 163. Fig. 9C shows that, at least for a substantial number of instructions, the opcodes are identical between the X86 CISC instruction set and the RISC instruction set. Applicants were the first to recognize that a RISC instruction set could be designed with significant correspondences to a CISC instruction set. ..." is noted, but is not persuasive. If one takes a look at applicant's cited figure (9C), we see three instructions, two labeled 941 and 943, and one unlabeled instruction in the center (which presumably may have been intended to have been labeled 942). Instructions 941 and 943 are additionally labeled "LDA/STA" and "ADD" respectively. If one now looks to the specification, one finds the following:

"6. Expansion from external form to internal formatted form

Referring to Figs. 9c and 9d, the expansion from the Tapestry native instruction form externally exposed, for instance to assembly language programmers, into an internal formatted form is a relatively trivial process of copying the explicit bits of the external native instruction (with some occasional modifications) into analogous fields of the internal formatted instructions, and supplying defaults for those fields that have no analog in the external native form. Some of side-band information 940 is specific to load and store instructions, and is developed by converter 136 during the conversion 136 from X86 form to native formatted form. (pg. 171, line 26 to pg. 172 line 2, emphasis added)

For instance, some external native Tapestry load/store instructions specify a segment reference, addressing mode, and auto-increment, but not explicit displacement. For these instructions, the Tapestry native instruction decoder 132, 138 creates a

formatted instruction by passing through the explicitly stated parts of the external instruction, and creating default values for the parts of the formatted instruction that have no analog in the external form. An example is the LDA/STA (load or store with auto-increment/decrement) external instruction 941 shown at the top of Fig. 9c. ... In expanding an LDA/STA instruction 941 from the externally-exposed form to formatted form, Tapestry native instruction decoder (132, 138 of Fig. 1c) performs a very simple process of copying analogous fields, and filling in defaults for fields of the internal formatted form that are not explicitly set out in the external native instruction. For instance, because no load/store displacement is present in the external form 941 of the instruction, decoder 132, 138 supplies thirty-two explicit bits of Zero addressing displacement 924. (pg. 172 line 24 to pg. 174 line 6, emphasis added)

A fourth native Tapestry format, typically used for ADD and similar arithmetic instructions, is exemplified by instruction 943, at the bottom of Fig. 9c. (pg. 174 lines 28-29, emphasis added)

As seen from these quotations, both instructions 941 and 943 are "external native Tapestry ... instructions" which are converted into "internal formatted form" by a simple process of copying corresponding bits from the "external native Tapestry instructions" into the "internal formatted form". So this figure and it's surrounding disclosure show only two types of instructions, "external native Tapestry" and "internal formatted". The next question then follows, are "X86 CISC" instructions the same as "external native Tapestry" instructions? If we look to the following sections of the specification, we see that "X86 CISC" instructions are not "external native Tapestry" instructions:

Converter 136 converts X86 instructions into Tapestry instructions in formatted internal form. For the most part, the formatted instructions emitted by converter 136 are identical to formatted instructions generated from external Tapestry instructions by Tapestry instruction decoder 132, 138. (pg. 175 lines 18-21)

This portion of the specification indicates a distinction between "X86 instructions" and "external Tapestry instructions" in that they are two items referred to by two different names. Next, if one looks to pg. 42 of the specification:

Tapestry processor 100 fetches (stage 110) instructions from instruction cache (I-cache) 112, or from memory 118, from a location specified by IP (instruction pointer, generally known as the PC or program counter in other machines) 114, ... The instructions fetched from I-cache 112 are executed by a RISC execution pipeline 120. In addition to the services provided by a conventional I-TLB, I-TLB 116 stores several bits 182, 186 that choose an instruction environment in which to interpret the fetched instruction bytes. One bit 182 selects an instruction set architecture (ISA) for the instructions on a memory page. Thus, the Tapestry hardware can readily execute either native instructions or the instructions of the Intel X86 ISA. (pg. 42, lines 15-23, emphasis added)

This portion of the specification further indicates that there is a distinction, and difference, between "native instructions" and "the instructions of the Intel X86 ISA". Further on page 42 is found this quote:

When a hot spot is detected, a binary translator 124 translates the X86 instructions of the hot spot into optimized native Tapestry code, called "TAXi code."

This quote further indicates that there is a very definite distinction, and therefore difference, between "X86 instructions" and "native Tapestry code" because if there were no difference, there would be no need to translate X86 into native Tapestry.

Therefore, based upon these sections of the specification, the answer to the question posed above: "are "X86 CISC" instructions the same as "external native Tapestry" instructions?" is NO, "X86 CISC" instructions are distinct and different from "external native Tapestry" instructions. Therefore, because "X86 CISC" instructions are different and distinct, the disclosure on Fig. 9c of two "external native Tapestry instructions" (941 and 943, see quotation to pgs. 172-174 above) provides no teaching, and no indication at all, that the element "opcode" on the figure has any relationship what-so-ever with X86 CISC instructions. Figure 9c simply shows that the conversion from "native Tapestry format", which corresponds to the claimed "RISC instruction set" shares opcode values with opcodes of the "formatted internal form" (middle unlabeled instruction of Fig. 9c). However, applicant's claims state that the "RISC instruction set" shares opcode values with the "CISC instruction set". But as seen above, the "CISC instruction set" is separate and distinct from either the "external native Tapestry" format and the "internal formatted" format. Therefore, there is absolutely no disclosure that either of the "external native Tapestry" or the "internal formatted" format in any way shares any opcode or other values in common with the X86 CISC instruction format.

Therefore, insertion into the claims of language stating that the RISC and CISC formats share opcode values and addressing modes is new matter because that material is not found anywhere within the original disclosure as filed.

Applicant is **required** to cancel the new matter in the response to this Office action.

9. Claims 1-72 are rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Based upon the detailed explanation above regarding the amendments entry of new matter into the specification, because of the fact that the added material was not present and is not present in the specification, it is not possible that the material could have been described in such a way to convey that the inventor(s) had possession of the claimed invention. The fact that the material is not present indicates that the inventors did not have possession of the material.

10. Claims 1-72 are rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Based upon the detailed explanation above regarding the amendments entry of new matter into the specification, because of the fact that the added material was not present and is not present in the specification, it is not possible that the material could have been described in such a way as to enable one of skill in the art to which it pertains to make and/or use the invention. That which is not described at all can not possibly be described sufficiently to allow someone to make and/or use the invention.

11. Claims 1-72 are rejected under 35 USC 112, first paragraph, because the best mode contemplated by the invention has not been disclosed. Evidence of concealment of the best mode is based upon the fact that the original disclosure in no way described the now claimed features, as detailed above in the new matter objection. Because applicant has now added this feature to the claims in an attempt to differentiate the claims from the applied prior art, this feature appears to be a best mode of the invention. By failing to disclose this feature in the original specification, but by now attempting to use it to overcome the prior art, indicates that

applicant has concealed the best mode contemplated by the invention.

12. Applicant's arguments with respect to claims 1-72 have been considered but are deemed to be moot in view of the new grounds of rejection.
13. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).


A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Richard Ellis whose telephone number is (703) 305-9690. The Examiner can normally be reached on Monday through Thursday from 7am to 5pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eddie Chan, can be reached on (703) 305-9712. The fax phone number for the USPTO is: (703)872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Richard Ellis
September 2, 2004


RICHARD L. ELLIS
PRIMARY EXAMINER

REVISED AMENDMENT PRACTICE: 37 CFR 1.121 CHANGED COMPLIANCE IS MANDATORY - Effective Date: July 30, 2003

All amendments filed on or after the effective date noted above must comply with revised 37 CFR 1.121. See Final Rule: **Changes To Implement Electronic Maintenance of Official Patent Application Records** (68 Fed. Reg. 38611 (June 30, 2003)), posted on the Office's website at: <http://www.uspto.gov/web/patents/ifw/> with related information. The amendment practice set forth in revised 37 CFR 1.121, and described below, replaces the voluntary revised amendment format available to applicants since February 2003. **NOTE: STRICT COMPLIANCE WITH THE REVISED 37 CFR 1.121 IS REQUIRED AS OF THE EFFECTIVE DATE (July 30, 2003).** The Office will notify applicants of amendments that are not accepted because they do not comply with revised 37 CFR 1.121 via a Notice of Non-Compliant Amendment. See MPEP 714.03 (Rev. 1, Feb. 2003). The non-compliant section(s) will have to be corrected and the entire corrected section(s) resubmitted within a set period.

Bold underlined italic font has been used below to highlight the major differences between the revised 37 CFR 1.121 and the voluntary revised amendment format that applicants could use since February, 2003.

Note: The amendment practice for reissues and reexamination proceedings, except for drawings, has not changed.

REVISED AMENDMENT PRACTICE

I. Begin each section of an amendment document on a separate sheet:

Each section of an amendment document (e.g., Specification Amendments, Claim Amendments, Drawing Amendments, and Remarks) must begin on a separate sheet. Starting each separate section on a new page will facilitate the process of separately indexing and scanning each section of an amendment document for placement in an image file wrapper.

II. Two versions of amended part(s) no longer required:

37 CFR 1.121 has been revised to **no longer require two versions** (a clean version and a marked up version) of each replacement paragraph or section, or amended claim. Note, however, the requirements for a clean version and a marked up version for **substitute specifications** under 37 CFR 1.125 have been retained.

A) Amendments to the claims:

Each amendment document that includes a change to an existing claim, cancellation of a claim or submission of a new claim, **must include a complete listing** of all claims in the application. After each claim number in the listing, the status must be indicated in a parenthetical expression, and **the text of each pending claim** (with markings to show **current changes**) must be presented. The claims in the listing will replace all prior claims in the application.

- (1) The current status of all of the claims in the application, including any previously canceled, not entered or withdrawn claims, must be given in a parenthetical expression following the claim number using only one of the following seven status identifiers: (original), (currently amended), (canceled), (withdrawn), (new), **(previously presented) and (not entered)**. The text of all pending claims, **including withdrawn claims**, must be submitted each time any claim is amended. Canceled **and not entered** claims must be indicated by only the claim number and status, without presenting the text of the claims.
- (2) The text of all claims **being currently amended** must be presented in the claim listing with markings to indicate the changes that have been made relative to the immediate prior version. The changes in any amended claim must be shown by underlining (for added matter) or strikethrough (for deleted matter) with 2 exceptions: (1) for **deletion of five characters or fewer, double brackets may be used (e.g., [[error]]); and (2) if strikethrough cannot be easily perceived (e.g., deletion of the number "4" or certain punctuation marks), double brackets must be used (e.g., [[4]])**. **As an alternative to using double brackets, however, extra portions of text may be included before and after text being deleted, all in strikethrough, followed by including and underlining the extra text with the desired change (e.g., number 4 as number 14 as)**. An accompanying clean version is not required and should not be presented. Only claims of the status "currently amended," and "withdrawn" that are being amended, may include markings.
- (3) The text of pending claims **not being currently amended, including withdrawn claims**, must be presented in the claim listing in clean version, i.e., without any markings. Any claim text presented in clean version will constitute an assertion that it has not been changed relative to the immediate prior version except to omit markings that may have been present in the immediate prior version of the claims.

- (4) A claim being canceled must be listed in the claim listing with the status identifier "canceled"; the text of the claim must not be presented. Providing an instruction to cancel is optional.
- (5) Any claims added by amendment must be presented in the claim listing with the status identifier "(new)"; the text of the claim must not be underlined.
- (6) All of the claims in the claim listing must be presented in ascending numerical order. Consecutive canceled, or not entered, claims may be aggregated into one statement (e.g., Claims 1 – 5 (canceled)).

Example of listing of claims (use of the word "claim" before the claim number is optional):

Claims 1-5 (canceled)

Claim 6 (previously presented): A bucket with a handle.

Claim 7 (withdrawn): A handle comprising an elongated wire.

Claim 8 (withdrawn): The handle of claim 7 further comprising a plastic grip.

Claim 9 (currently amended): A bucket with a ~~green~~ blue handle.

Claim 10 (original): The bucket of claim 9 wherein the handle is made of wood.

Claim 11 (canceled)

Claim 12 (not entered)

Claim 13 (new): A bucket with plastic sides and bottom.

B) Amendments to the specification:

Amendments to the specification, including the abstract, must be made by presenting a replacement paragraph or section or abstract marked up to show changes made relative to the immediate prior version. An accompanying clean version is not required and should not be presented. Newly added paragraphs or sections, including a new abstract (instead of a replacement abstract), must not be underlined. A replacement or new abstract must be submitted on a separate sheet, 37 CFR 1.72. If a substitute specification is being submitted to incorporate extensive amendments, both a clean version (which will be entered) and a marked up version must be submitted as per 37 CFR 1.125.

The changes in any replacement paragraph or section, or substitute specification must be shown by underlining (for added matter) or strikethrough (for deleted matter) with 2 exceptions: (1) for deletion of five characters or fewer, double brackets may be used (e.g., [[eroor]]); and (2) if strikethrough cannot be easily perceived (e.g., deletion of the number "4" or certain punctuation marks), double brackets must be used (e.g., [[4]]). As an alternative to using double brackets, however, extra portions of text may be included before and after text being deleted, all in strikethrough, followed by including and underlining the extra text with the desired change (e.g., ~~number 4~~ as number 14 as)

C) Amendments to drawing figures:

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment, and may be accompanied by a marked-up copy of one or more of the figures being amended, with annotations. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. Any marked-up (annotated) copy showing changes must be labeled "Annotated Marked-up Drawings" and accompany the replacement sheet in the amendment (e.g., as an appendix).

The figure or figure number of the amended drawing(s) must **not** be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Questions regarding the submission of amendments pursuant to the revised practice set forth in this flyer should be directed to: Elizabeth Dougherty or Gena Jones, Legal Advisors, or Joe Narcavage, Senior Special Projects Examiner, Office of Patent Legal Administration, by e-mail to patentpractice@uspto.gov or by phone at (703) 305-1616.